

CÓD. 233

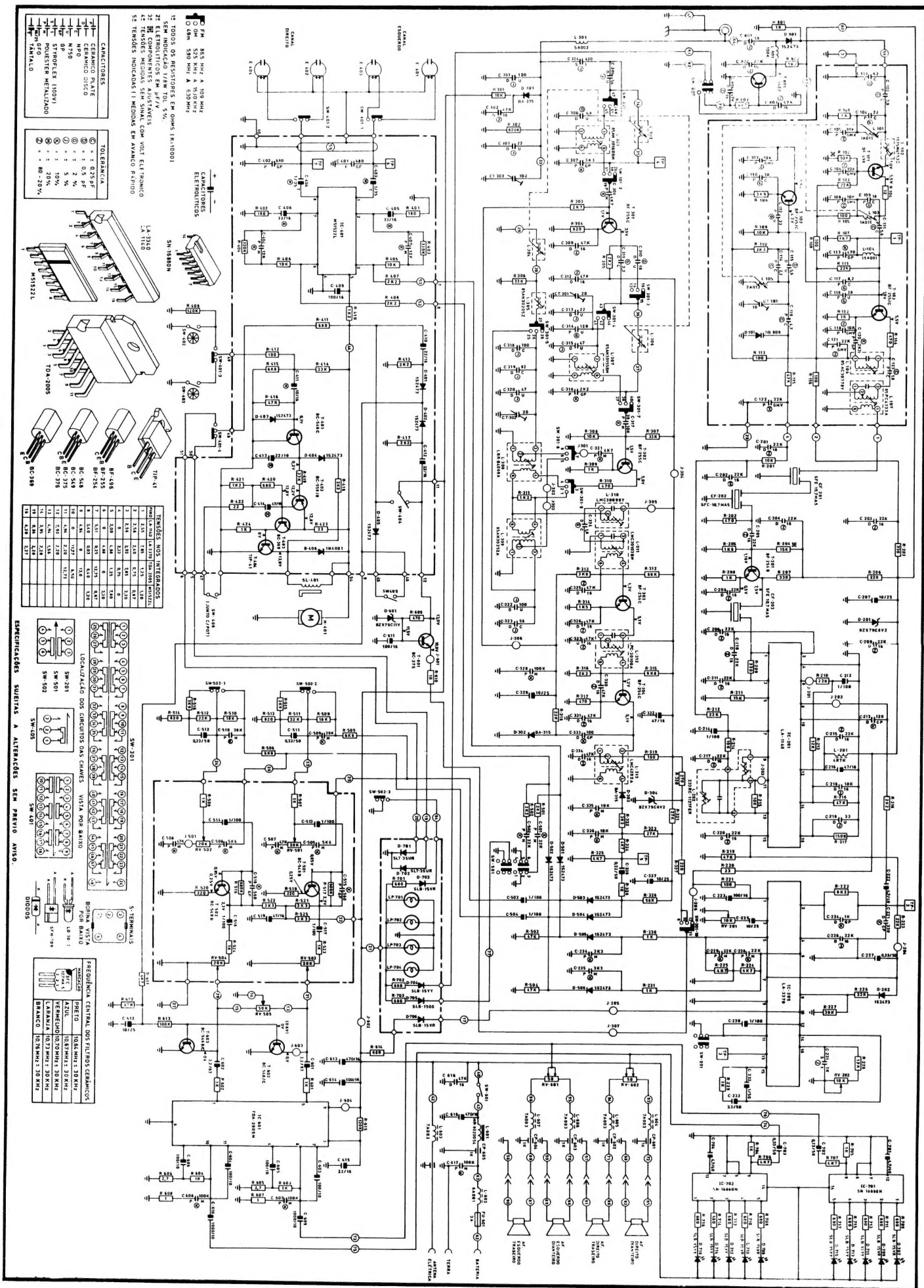


# DIAGRAMAS ESQUEMÁTICOS

## VOLUME-4

**eltec**<sup>®</sup>  
EDITORA DE LIVROS TÉCNICOS LTDA.

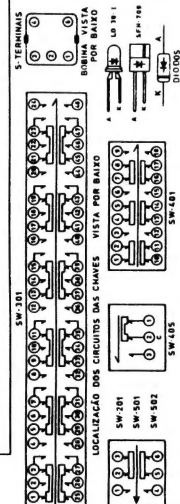






**FREQUÊNCIA CENTRAL DOS FILTROS CERÂMICOS**

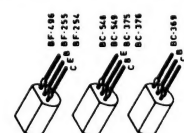
COR	FREQUÊNCIA (kHz)
PRETO	10,6 MHz ± 20 kHz
AZUL	10,7 MHz ± 20 kHz
VERMELHO	10,75 MHz ± 20 kHz
LARANJA	10,73 MHz ± 20 kHz
BRANCO	10,78 MHz ± 20 kHz

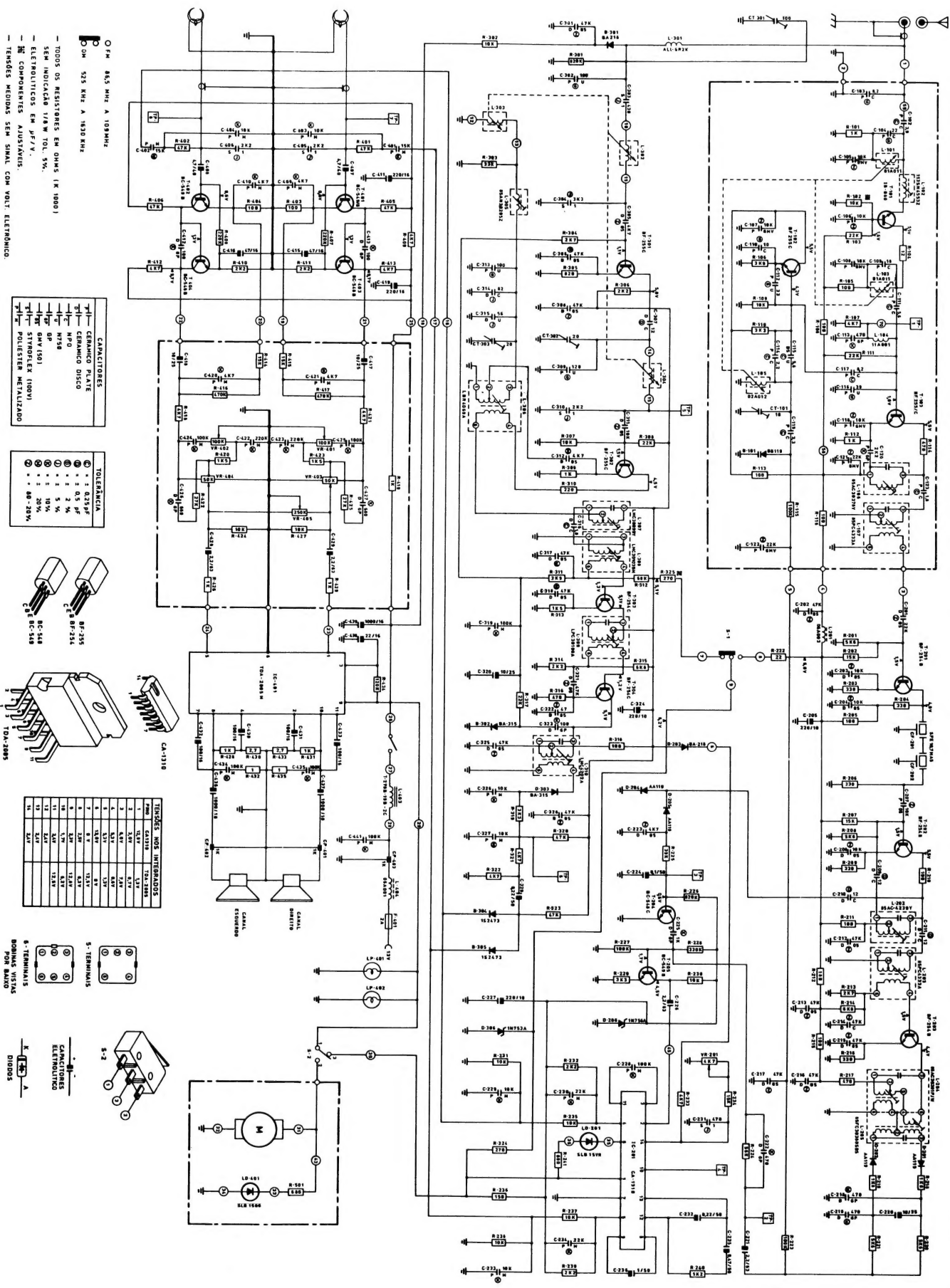


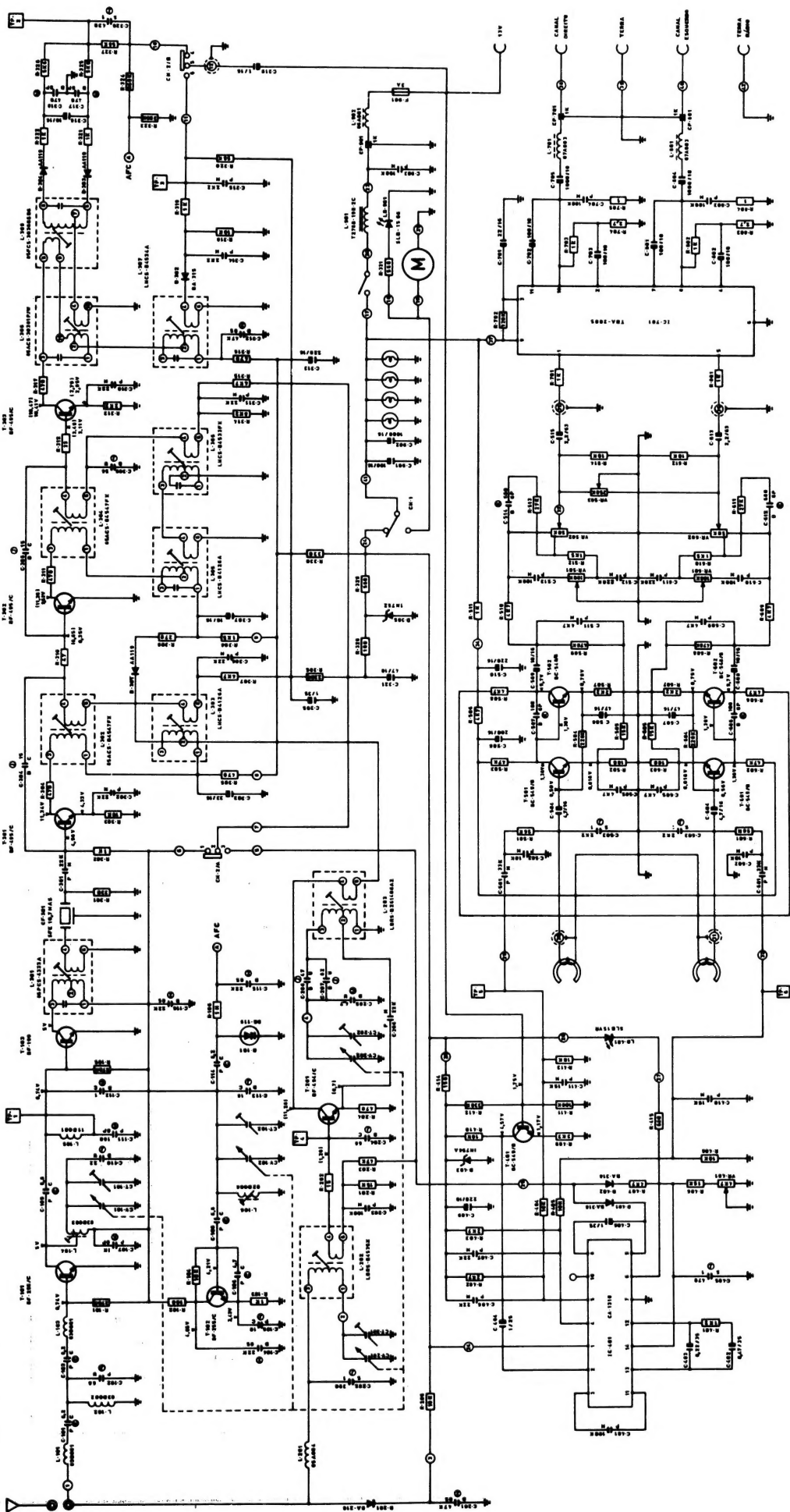
ESPECIFICAÇÕES SUJEITAS A ALTERAÇÕES SEM PREVIO AVISO.

**TENSÕES NOS INTERMEDIÁRIOS**

INTERMEDIÁRIO	TENSÃO (V)
1	5,0
2	5,0
3	5,0
4	5,0
5	5,0
6	5,0
7	5,0
8	5,0
9	5,0
10	5,0
11	5,0
12	5,0
13	5,0
14	5,0
15	5,0
16	5,0
17	5,0
18	5,0
19	5,0
20	5,0
21	5,0
22	5,0
23	5,0
24	5,0
25	5,0
26	5,0
27	5,0
28	5,0
29	5,0
30	5,0
31	5,0
32	5,0
33	5,0
34	5,0
35	5,0
36	5,0
37	5,0
38	5,0
39	5,0
40	5,0
41	5,0
42	5,0
43	5,0
44	5,0
45	5,0
46	5,0
47	5,0
48	5,0
49	5,0
50	5,0
51	5,0
52	5,0
53	5,0
54	5,0
55	5,0
56	5,0
57	5,0
58	5,0
59	5,0
60	5,0
61	5,0
62	5,0
63	5,0
64	5,0
65	5,0
66	5,0
67	5,0
68	5,0
69	5,0
70	5,0
71	5,0
72	5,0
73	5,0
74	5,0
75	5,0
76	5,0
77	5,0
78	5,0
79	5,0
80	5,0
81	5,0
82	5,0
83	5,0
84	5,0
85	5,0
86	5,0
87	5,0
88	5,0
89	5,0
90	5,0
91	5,0
92	5,0
93	5,0
94	5,0
95	5,0
96	5,0
97	5,0
98	5,0
99	5,0
100	5,0







LOCALIZAÇÃO DO CIRCUITO DA CHAVE

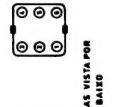


VISTA POR BAIXO



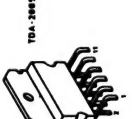
FREQUÊNCIA CENTRAL DOS DÍPTOS CERÂMICOS

MODELO	FAZENDA	VALORES
CA-1310	FAZENDA	10.7 MHz
CA-1310	FAZENDA	10.7 MHz
CA-1310	FAZENDA	10.7 MHz
CA-1310	FAZENDA	10.7 MHz
CA-1310	FAZENDA	10.7 MHz



VALORES DOS COMPONENTES

COMPONENTE	VALOR
R1	10K
R2	10K
R3	10K
R4	10K
R5	10K
R6	10K
R7	10K
R8	10K
R9	10K
R10	10K
R11	10K
R12	10K
R13	10K
R14	10K
R15	10K
R16	10K
R17	10K
R18	10K
R19	10K
R20	10K
R21	10K
R22	10K
R23	10K
R24	10K
R25	10K
R26	10K
R27	10K
R28	10K
R29	10K
R30	10K
R31	10K
R32	10K
R33	10K
R34	10K
R35	10K
R36	10K
R37	10K
R38	10K
R39	10K
R40	10K
R41	10K
R42	10K
R43	10K
R44	10K
R45	10K
R46	10K
R47	10K
R48	10K
R49	10K
R50	10K
R51	10K
R52	10K
R53	10K
R54	10K
R55	10K
R56	10K
R57	10K
R58	10K
R59	10K
R60	10K
R61	10K
R62	10K
R63	10K
R64	10K
R65	10K
R66	10K
R67	10K
R68	10K
R69	10K
R70	10K
R71	10K
R72	10K
R73	10K
R74	10K
R75	10K
R76	10K
R77	10K
R78	10K
R79	10K
R80	10K
R81	10K
R82	10K
R83	10K
R84	10K
R85	10K
R86	10K
R87	10K
R88	10K
R89	10K
R90	10K
R91	10K
R92	10K
R93	10K
R94	10K
R95	10K
R96	10K
R97	10K
R98	10K
R99	10K
R100	10K



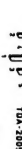
TOLERÂNCIA

COMPONENTE	TOLERÂNCIA
R1	± 5%
R2	± 5%
R3	± 5%
R4	± 5%
R5	± 5%
R6	± 5%
R7	± 5%
R8	± 5%
R9	± 5%
R10	± 5%
R11	± 5%
R12	± 5%
R13	± 5%
R14	± 5%
R15	± 5%
R16	± 5%
R17	± 5%
R18	± 5%
R19	± 5%
R20	± 5%
R21	± 5%
R22	± 5%
R23	± 5%
R24	± 5%
R25	± 5%
R26	± 5%
R27	± 5%
R28	± 5%
R29	± 5%
R30	± 5%
R31	± 5%
R32	± 5%
R33	± 5%
R34	± 5%
R35	± 5%
R36	± 5%
R37	± 5%
R38	± 5%
R39	± 5%
R40	± 5%
R41	± 5%
R42	± 5%
R43	± 5%
R44	± 5%
R45	± 5%
R46	± 5%
R47	± 5%
R48	± 5%
R49	± 5%
R50	± 5%
R51	± 5%
R52	± 5%
R53	± 5%
R54	± 5%
R55	± 5%
R56	± 5%
R57	± 5%
R58	± 5%
R59	± 5%
R60	± 5%
R61	± 5%
R62	± 5%
R63	± 5%
R64	± 5%
R65	± 5%
R66	± 5%
R67	± 5%
R68	± 5%
R69	± 5%
R70	± 5%
R71	± 5%
R72	± 5%
R73	± 5%
R74	± 5%
R75	± 5%
R76	± 5%
R77	± 5%
R78	± 5%
R79	± 5%
R80	± 5%
R81	± 5%
R82	± 5%
R83	± 5%
R84	± 5%
R85	± 5%
R86	± 5%
R87	± 5%
R88	± 5%
R89	± 5%
R90	± 5%
R91	± 5%
R92	± 5%
R93	± 5%
R94	± 5%
R95	± 5%
R96	± 5%
R97	± 5%
R98	± 5%
R99	± 5%
R100	± 5%

CAPACITORES

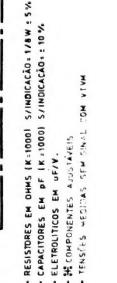
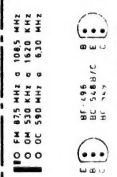
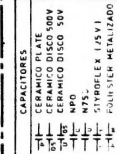
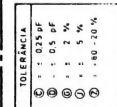
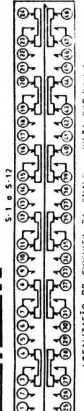
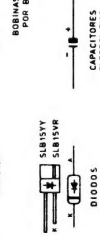
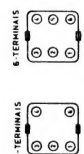
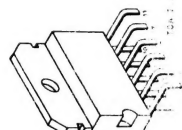
COMPONENTE	VALOR
C1	100pF
C2	100pF
C3	100pF
C4	100pF
C5	100pF
C6	100pF
C7	100pF
C8	100pF
C9	100pF
C10	100pF
C11	100pF
C12	100pF
C13	100pF
C14	100pF
C15	100pF
C16	100pF
C17	100pF
C18	100pF
C19	100pF
C20	100pF
C21	100pF
C22	100pF
C23	100pF
C24	100pF
C25	100pF
C26	100pF
C27	100pF
C28	100pF
C29	100pF
C30	100pF
C31	100pF
C32	100pF
C33	100pF
C34	100pF
C35	100pF
C36	100pF
C37	100pF
C38	100pF
C39	100pF
C40	100pF
C41	100pF
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C47	100pF
C48	100pF
C49	100pF
C50	100pF
C51	100pF
C52	100pF
C53	100pF
C54	100pF
C55	100pF
C56	100pF
C57	100pF
C58	100pF
C59	100pF
C60	100pF
C61	100pF
C62	100pF
C63	100pF
C64	100pF
C65	100pF
C66	100pF
C67	100pF
C68	100pF
C69	100pF
C70	100pF
C71	100pF
C72	100pF
C73	100pF
C74	100pF
C75	100pF
C76	100pF
C77	100pF
C78	100pF
C79	100pF
C80	100pF
C81	100pF
C82	100pF
C83	100pF
C84	100pF
C85	100pF
C86	100pF
C87	100pF
C88	100pF
C89	100pF
C90	100pF
C91	100pF
C92	100pF
C93	100pF
C94	100pF
C95	100pF
C96	100pF
C97	100pF
C98	100pF
C99	100pF
C100	100pF

- CAPACITORES EM pF (1000000).
- RESISTORES EM OHMS (1000).
- SEM INDICAÇÃO DE VALOR, 100K.
- ELETROLÍTICOS EM pF/V.
- COMPONENTES AJUSTÁVEIS.
- TENSÕES NOMINAIS COM VOLT. ELETROÔNICO EM pF.
- TENSÕES ENTRE PARÂMETROS NOMINAIS EM pF.





CA-1310  
SP 10800



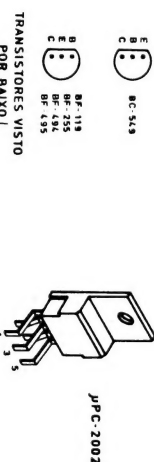
ESPECIFICAÇÕES SUJEITAS A ALTERAÇÕES SEM AVISO ANTERIOR

UNIDADES POR ROTA

- CAPACITORES EM pF (K-1000).
- RESISTORES EM OHMS (K-1000).
- SEM INDICAÇÃO 1/8W 10% 5%.
- ELETROLÍTICOS EM  $\mu$ F/V.
- COMPONENTES AJUSTÁVEIS.
- TENSÕES MEDIDAS COM VOLT. ELETRÔNICO EM FM.
- TENSÕES ENTRE PARENTESES MEDIDAS EM AM.

FM 86,5 MHz a 109 MHz  
O 525 KHz a 1630 KHz

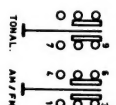
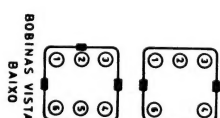
— CAPACITORES  
ELETROLÍTICOS

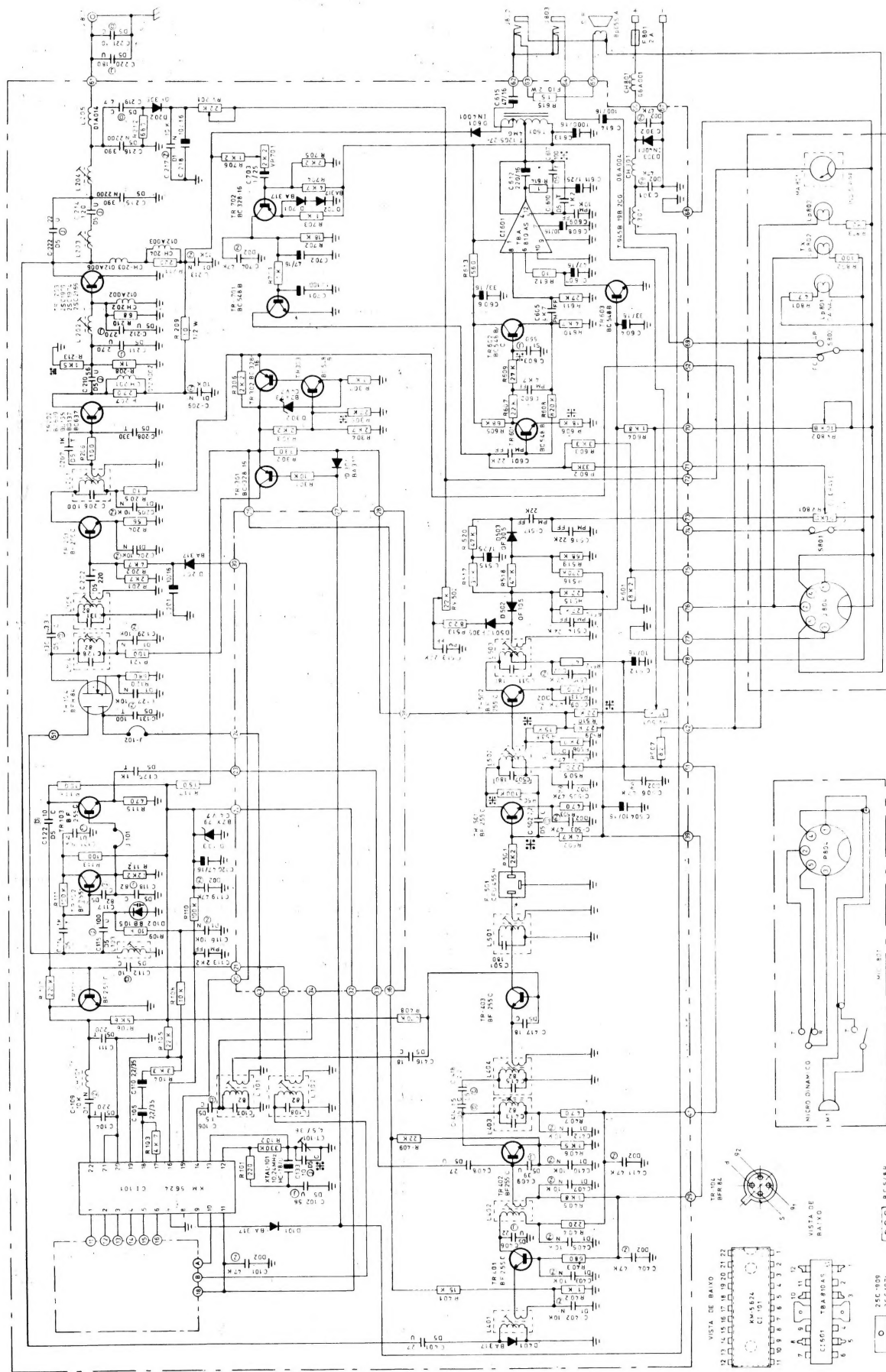


TRANSISTORES VISTO  
POR BAIXO

CAPACITORES
— CERAMICO PLATE
— CERAMICO DISCO
— NPO
— W750
— GP
— STYROFLEX (100V)
— POLIESTER METALIZADO

TOLERANCIA
① $\pm 0,25$ pF
② $\pm 0,5$ pF
③ $\pm 2$ %
④ $\pm 5$ %
⑤ $\pm 10$ %
⑥ $\pm 20$ %
⑦ $\pm 20$ %





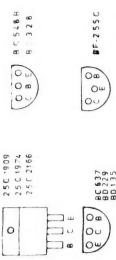
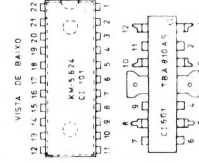
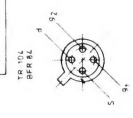
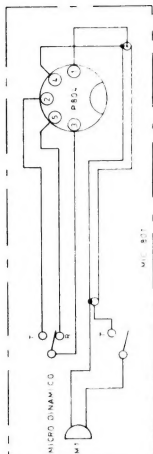
- 16-RESISTORES EM Ohms (x=1000)
- 28-CAPACITORES EM pF (x=1000)
- 38-ELETROLITICOS EM  $\mu$ F/V
- 48-COMPONENTES AUSTRIAEIS.

TOLERANCIA

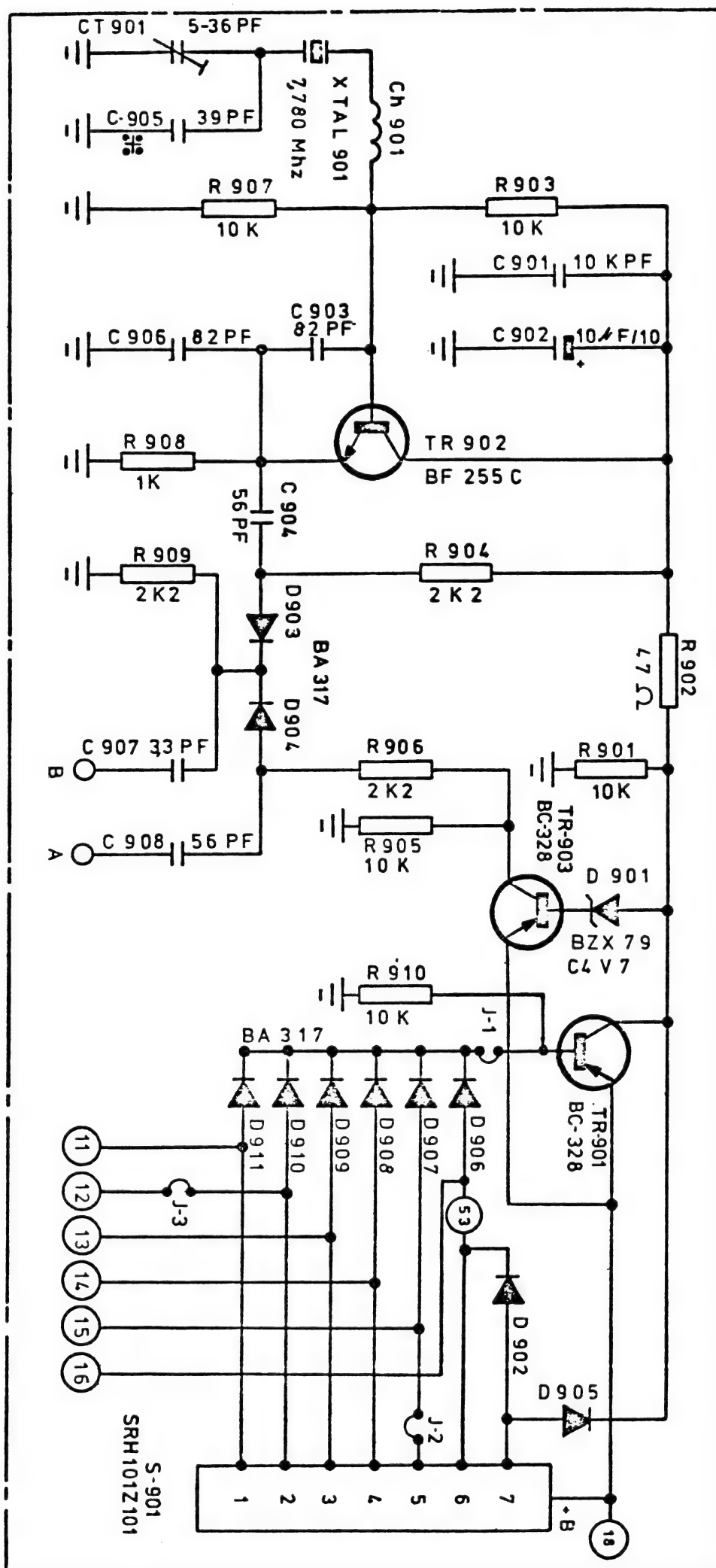
①	± 0,5 pF
②	± 5%
③	± 10%
④	± 20-80%

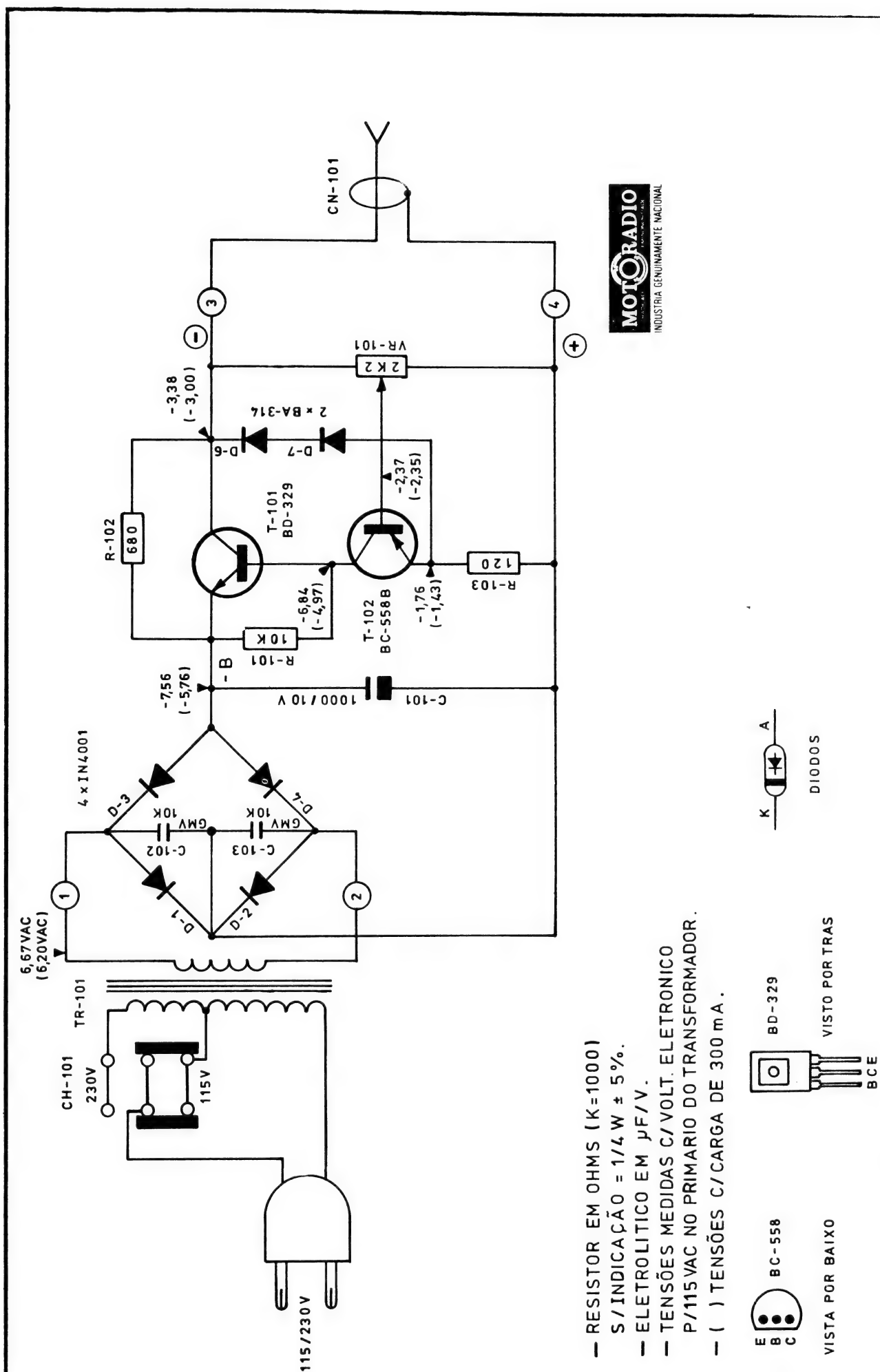
CAPACITORES

CERAMICO DISCO 500V-05	NPO = C
CERAMICO DISCO 100V-01	N75G = U
CERAMICO DISCO 25V-03	X5F = N
POLISTER METALIZ 250V-PM	ZAY = S/IND
STYROPLEX	33V-ST

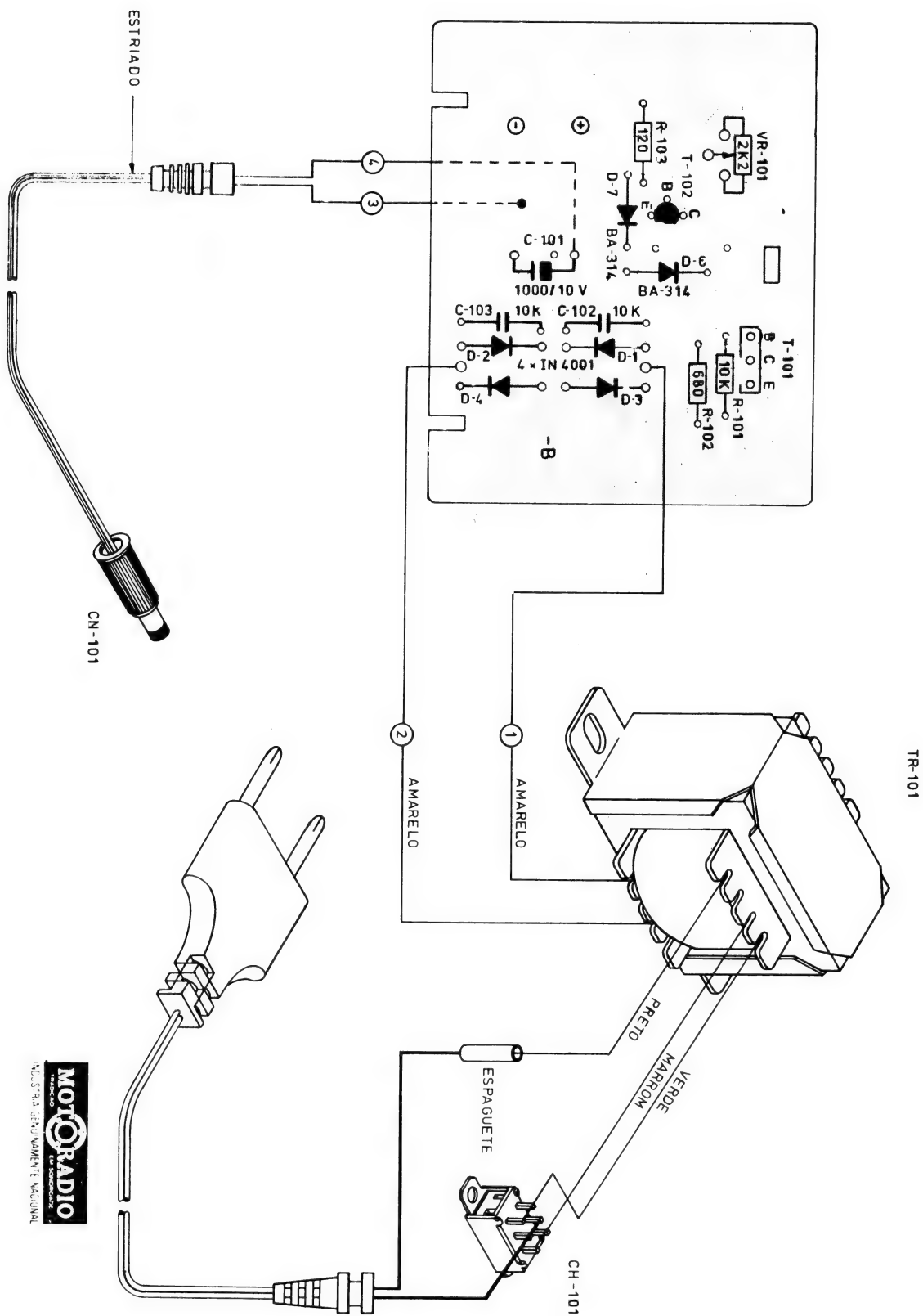


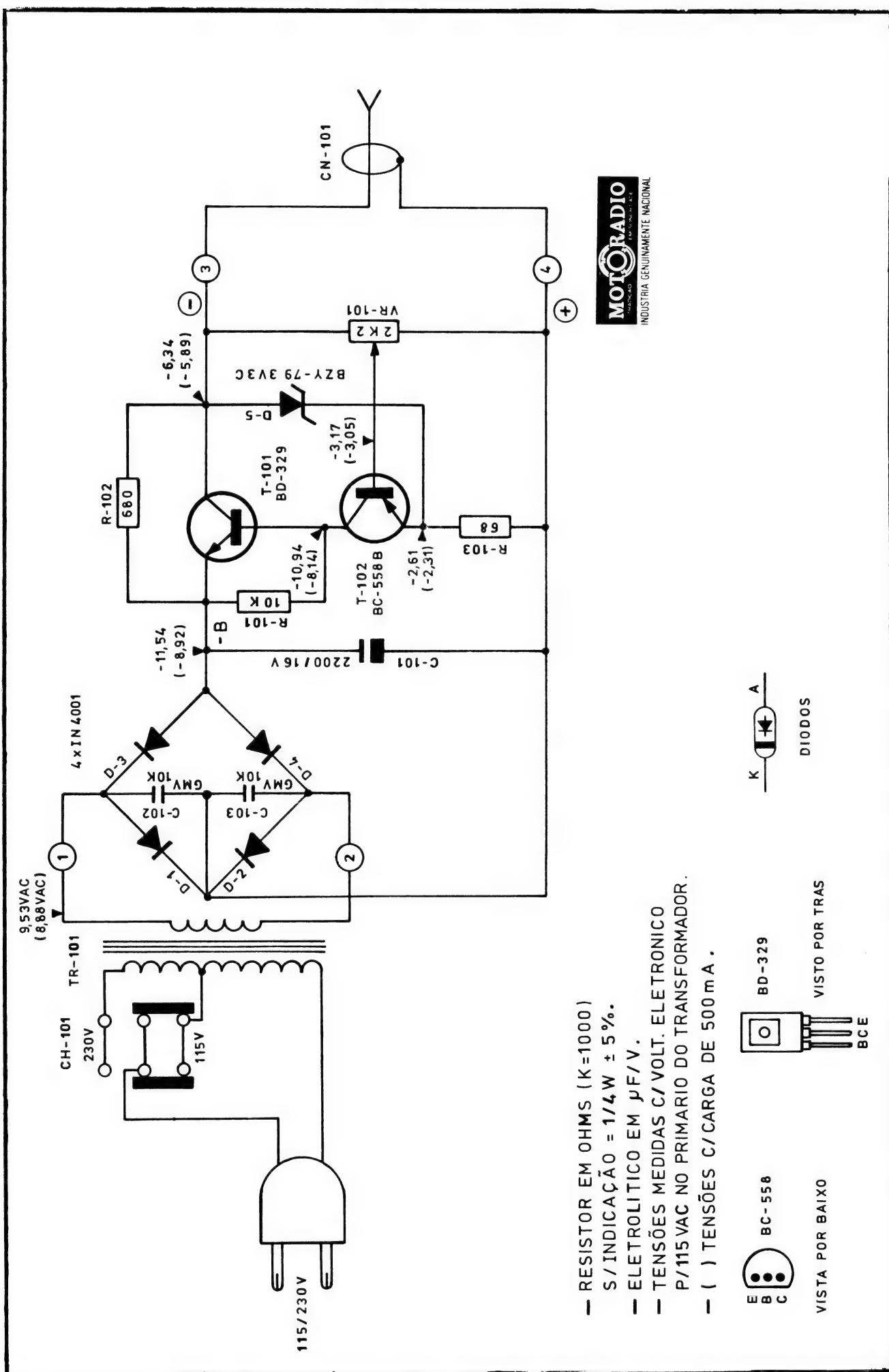


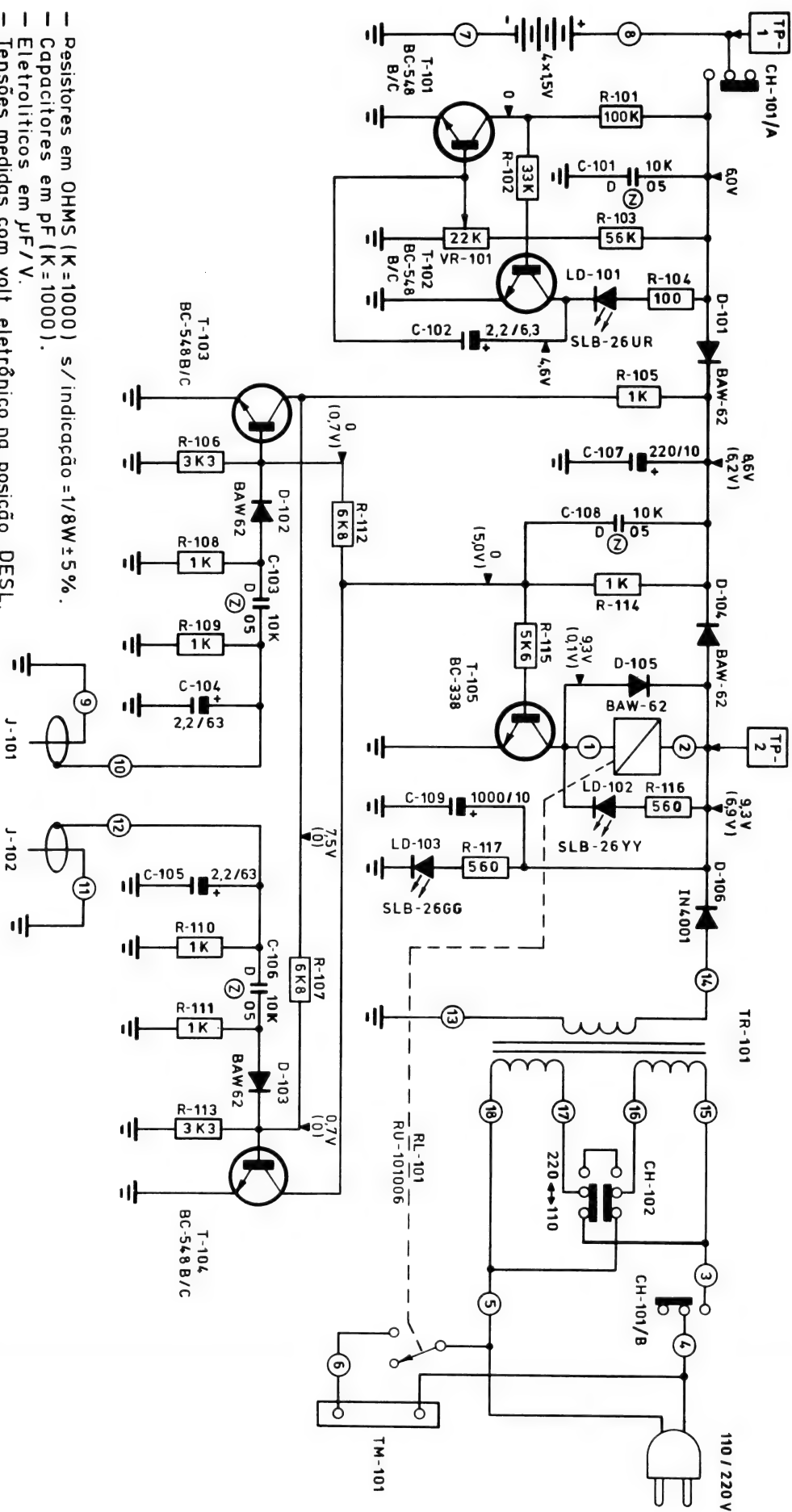




- RESISTOR EM OHMS (K=1000)
- S / INDICAÇÃO = 1/4 W ± 5 %.
- ELETROLITICO EM  $\mu F/V$ .
- TENSÕES MEDIDAS C/VOLT. ELETRONICO
- P/115VAC NO PRIMARIO DO TRANSFORMADOR.
- ( ) TENSÕES C/CARGA DE 300 mA.



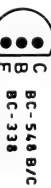




- Resistores em OHMS (K=1000) s/ indicação =  $1/8W \pm 5\%$ .
- Capacitores em pF (K=1000).
- Eletrolíticos em  $\mu F/V$ .
- Tensões medidas com volt. eletrônico na posição DESL.
- Tensões entre parenteses medidas na posição LIG.

CAPACITORES
05 CERAMICO DISCO GMV

TOLERÂNCIAS.
= $\pm 20\%$

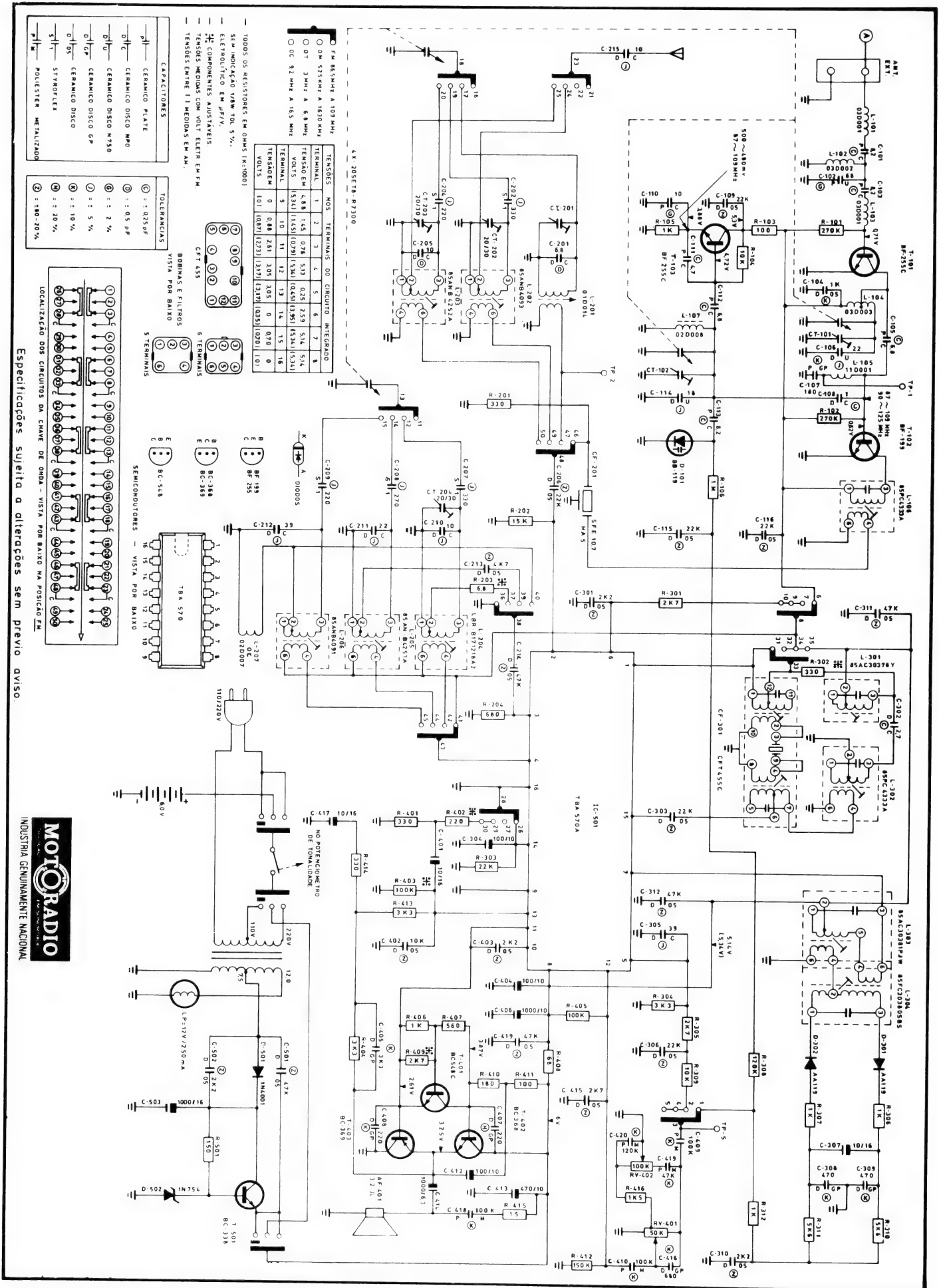


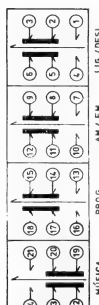
COMPONENTES VISTOS POR BAIXO.

Especificações sujeitas a alterações sem previo aviso.





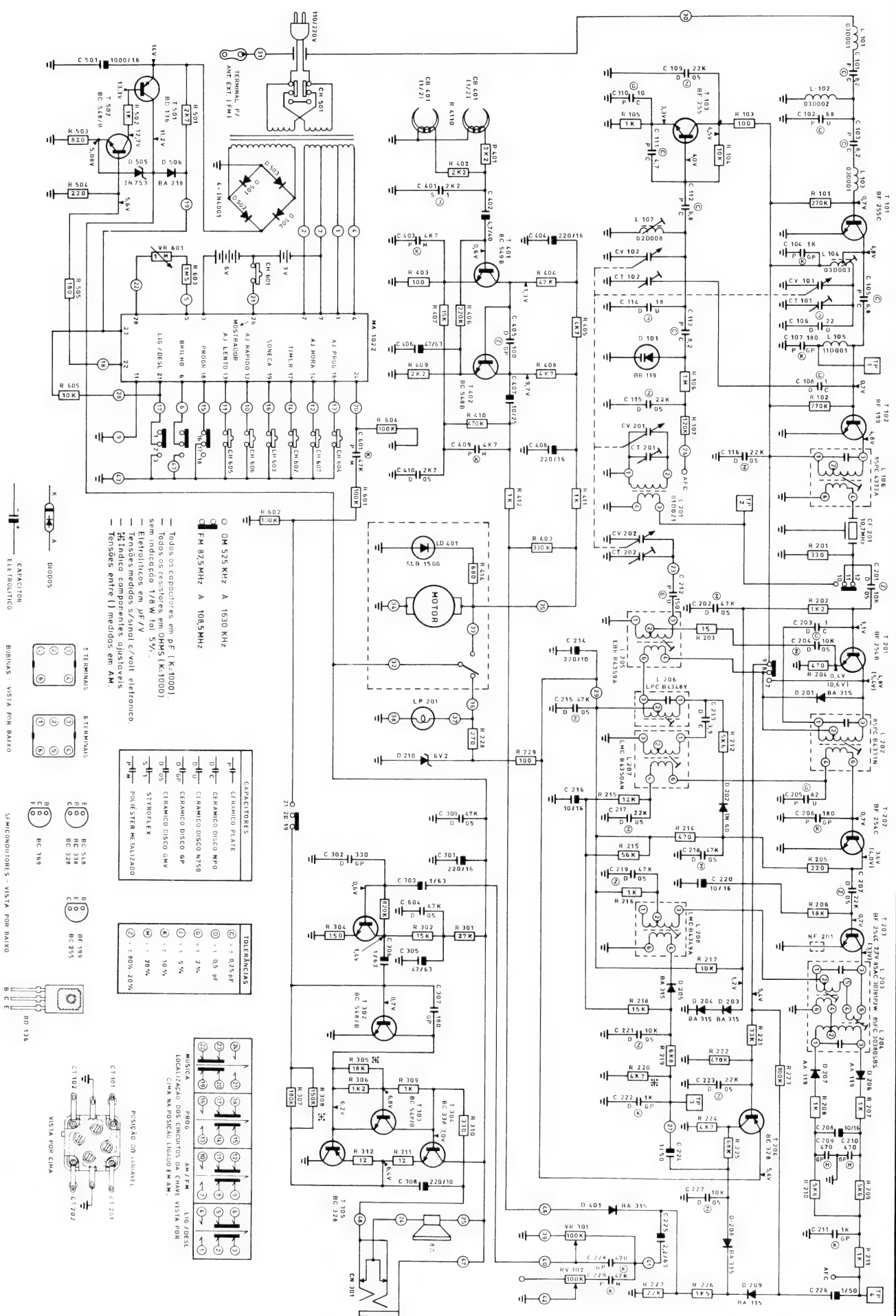


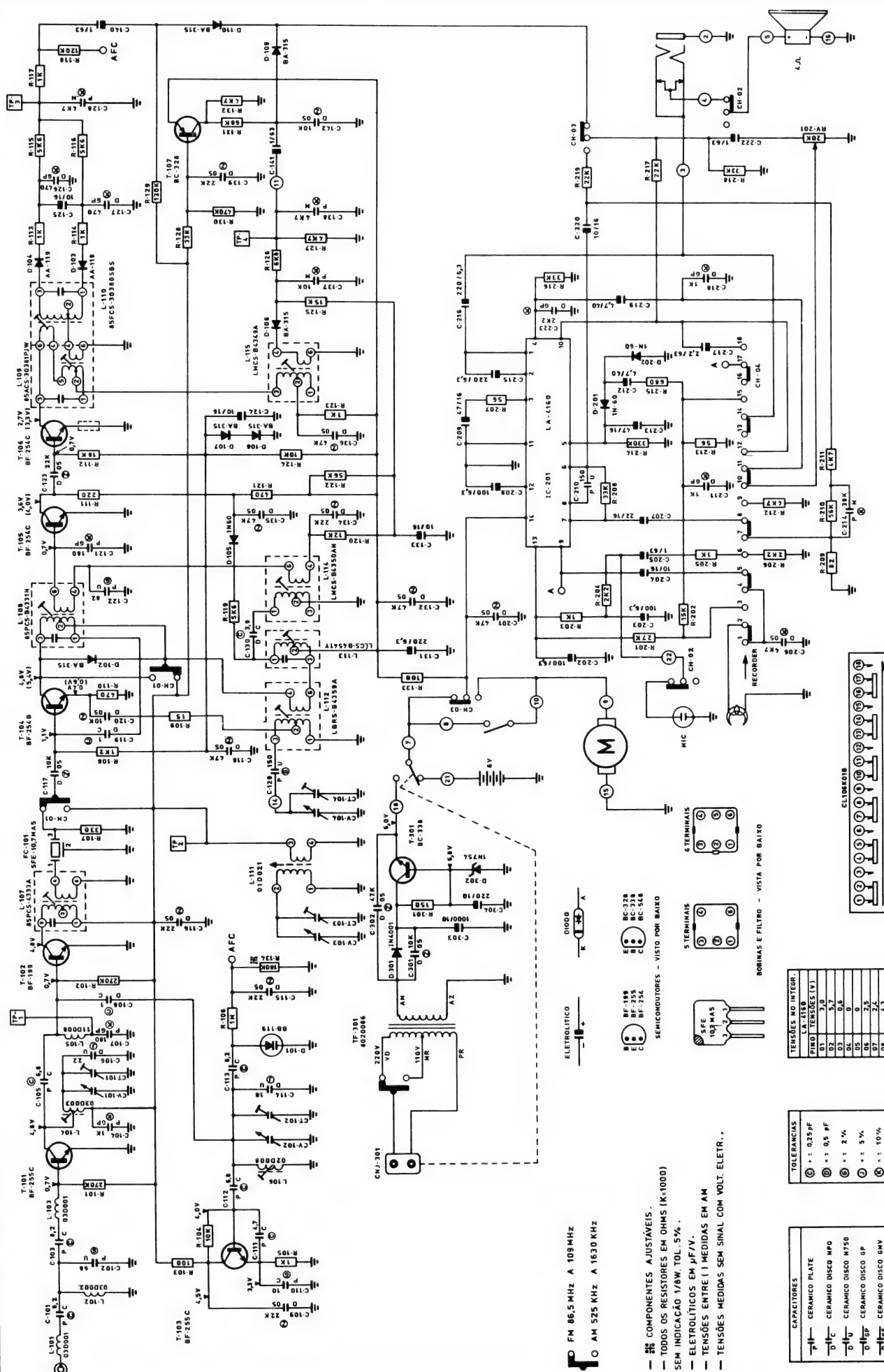


CIRCUITO INTEGRADO VISTO POR CIMA

	PROG	AM / FM	LIG / DESL.
MÚSICA			
LOCALIZAÇÃO DOS CIRCUITOS DA CHAVE VISTA POR CIMA NA POSIÇÃO LIGADO EM AM			
ESPECIFICAÇÕES SUJEITAS A ALTERAÇÕES SEM PRÉVIO AVISO.			

EMICONDUTORES - VISTA POR BAIXO





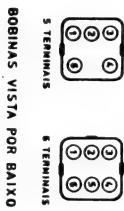
**ESPECIFICAÇÕES SUJEITAS A ALTERAÇÕES SEM PREVIO AVISO.**

TENSÕES NO INTEGR.		LA-4160	
PINO	TENSÕES (V)	PINO	TENSÕES (V)
01	3,0	01	3,0
02	5,7	02	5,7
03	0,6	03	0,6
04	0	04	0
05	0	05	0
06	2,5	06	2,5
07	2,4	07	2,4
08	4,3	08	4,3
09	2,4	09	2,4
10	0,6	10	0,6
11	0	11	0
12	2,5	12	2,5
13	5,0	13	5,0
14	5,0	14	5,0

TOLERANCIAS	
C	± 0,25 pF
D	± 0,5 pF
E	± 2 %
F	± 5 %
G	± 10 %
M	± 20 %
2	± 80%-20 %

$\frac{P}{H}$	CERAMICO PLATE
$\frac{D}{H}$	CERAMICO DISCO WPO
$\frac{D}{H}$	CERAMICO DISCO W750
$\frac{D}{H}$	CERAMICO DISCO 6P
$\frac{D}{H}$	CERAMICO DISCO 6MV
$\frac{S}{H}$	STYROFLEX
$\frac{P}{H}$	POLYESTER METALIZADO

- FM 86,5 MHz A 109 MHz
- AM 525 KHz A 1630 KHz
- TODOS OS RESISTORES EM OHMS (K: 1000)
- SEM INDICAÇÃO 1/8 W TOL 5 %.
- CAPACITORES EM PF (K: 1000).
- ELETROLITICOS EM UF/V.
- COMPONENTES AJUSTAVEIS.
- TENSÕES ENTRE ( ) MEDIDAS EM AM.
- TENSÕES MEDIDAS S/ SINAL C/VOLT. ELET.

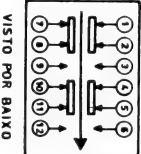


BOBINAS VISTA POR BAIXO

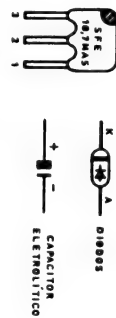
CAPACITORES	
P	CERAMICO PLATE
D-C	CERAMICO DISCO NPO
D-U	CERAMICO DISCO N750
D-GP	CERAMICO DISCO GP
D-OS	CERAMICO DISCO GMV
S-F	STYROFLEX
P-M	POLESTER METALIZADO

TOLERÂNCIAS	
(C)	: 0,25 PF
(D)	: 0,5 PF
(G)	: 2 %
(U)	: 5 %
(K)	: 10 %
(N)	: 20 %
(Z)	: 80 - 20 %

CIRCUITO DA CHAVE EM FM



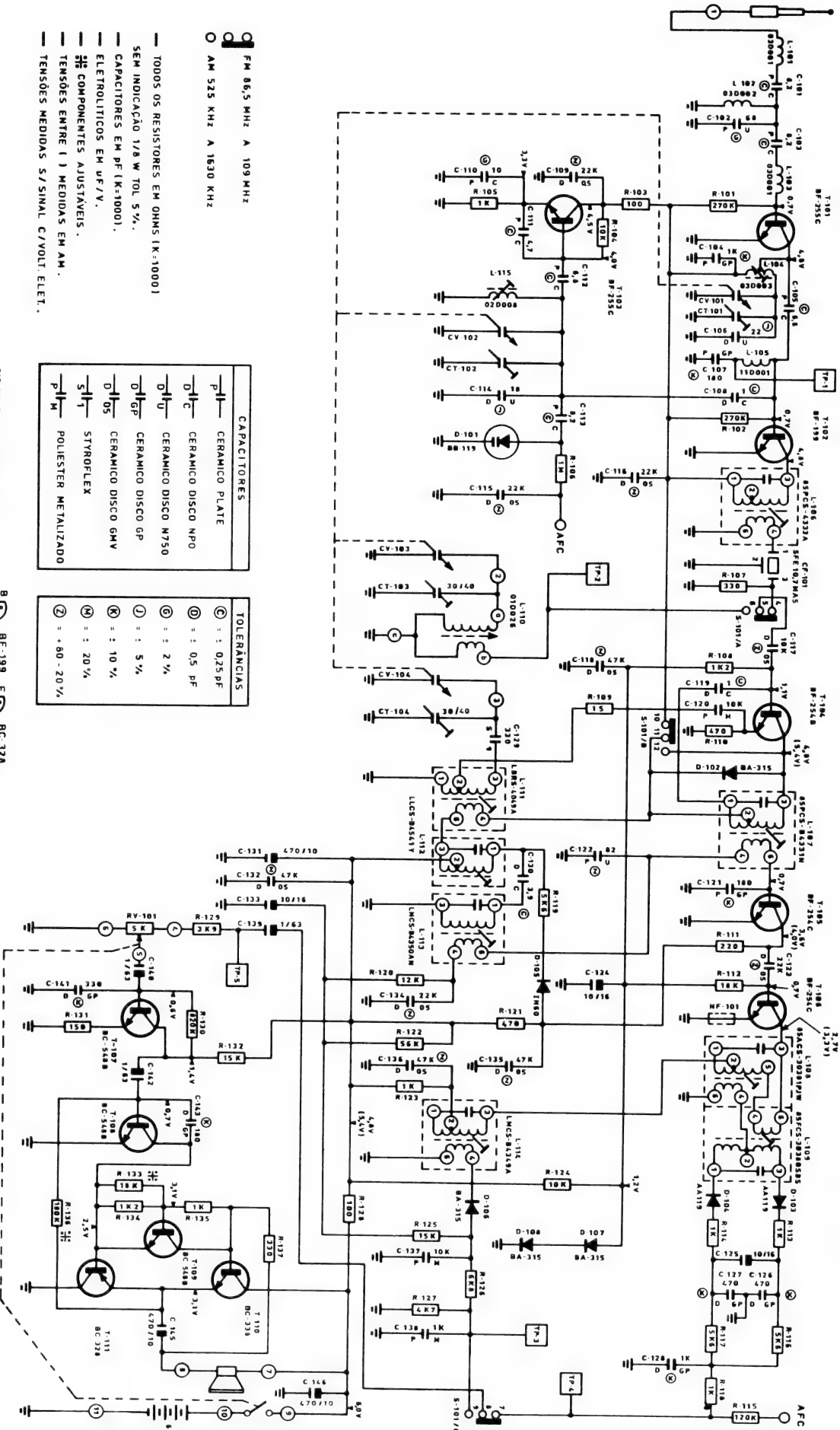
VISTA POR BAIXO

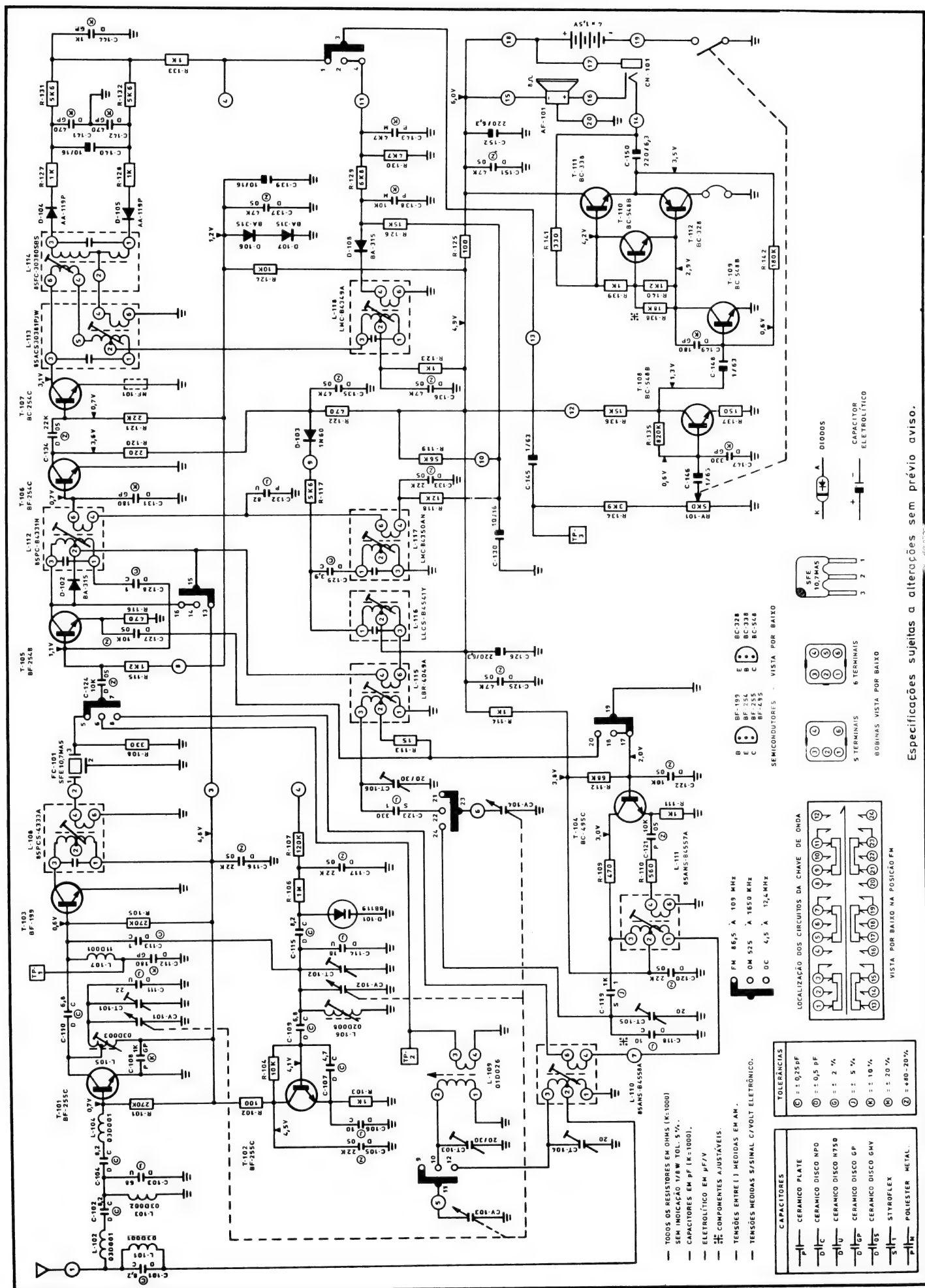


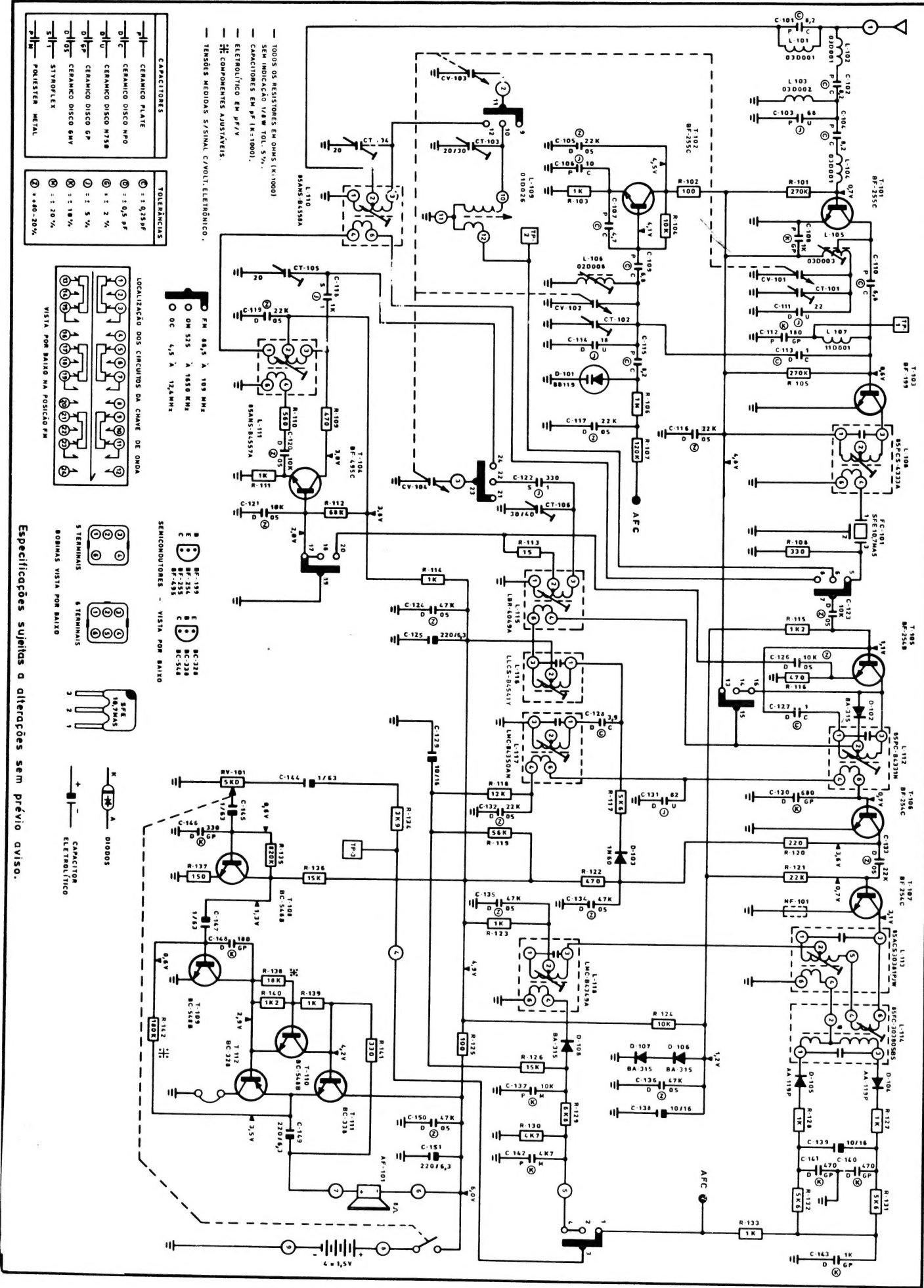
SEMICONDUTORES VISTA POR BAIXO

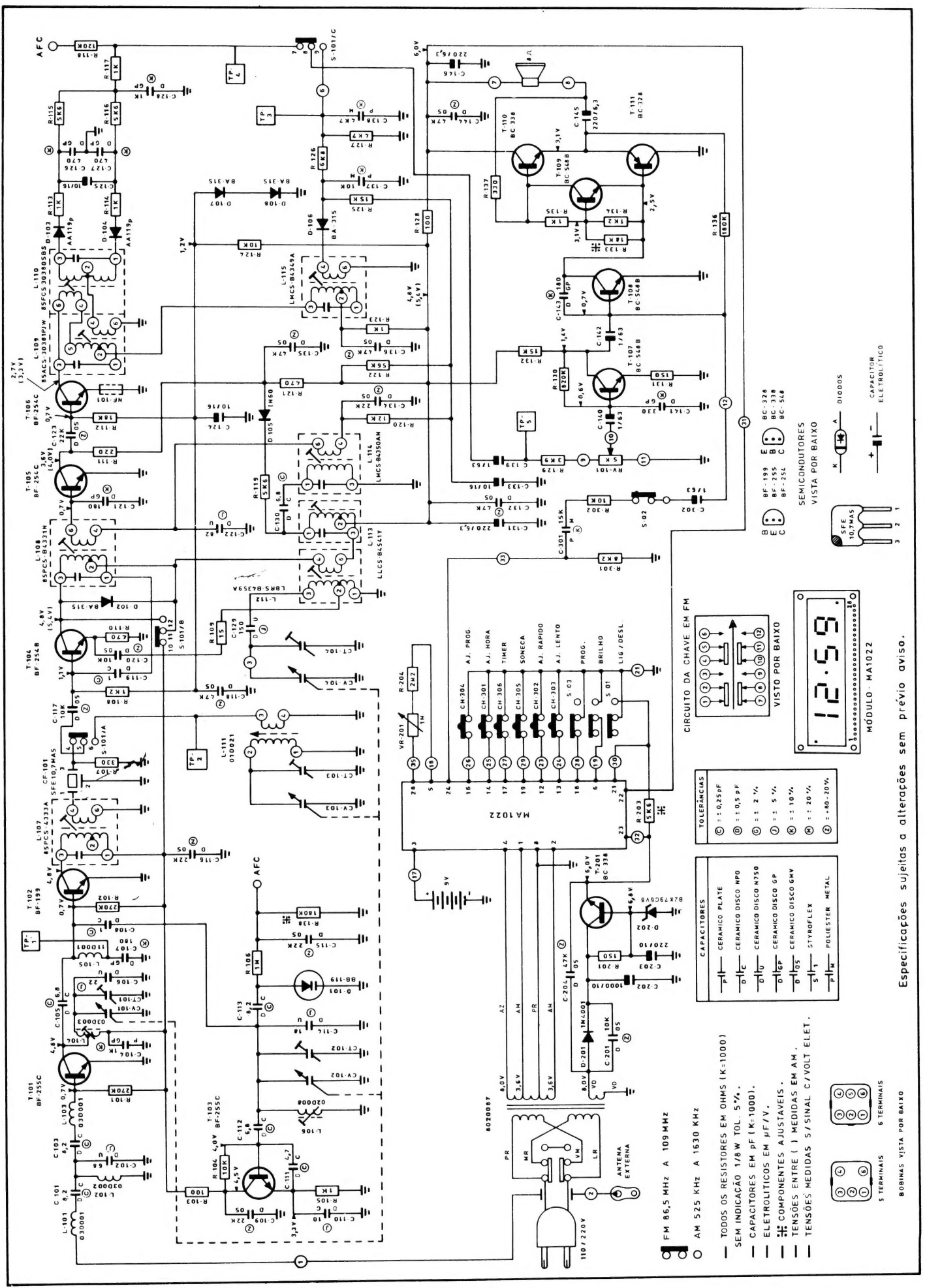


POSICÃO DO VARIÁVEL









CAPACITORES	
	CERAMICO PLATE
	CERAMICO DISCO NPO
	CERAMICO DISCO N750
	ELETROLITICOS EM µF/V.
	COMPONENTES AJUSTAVEIS
	TENSÕES ENTRE ( ) MEDIDAS EM AM.
	TENSÕES MEDIDAS S/SINAL C/VOLT ELET.
TOLERÂNCIAS	
	± 0,25%
	± 0,5 %
	± 1 %
	± 2 %
	± 5 %
	± 10 %
	± 20 %
	± 40-20 %

CIRCUITO DA CHAVE EM FM	
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